

# CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD) OR HEAVES

## ETIOLOGY

- Chronic Obstructive Pulmonary Disease (COPD) or “heaves” is a respiratory disease that can be the result of an allergic response that occurs following exposure of the lower airways to dust and moulds, particularly those that come from poorly cured hay. COPD occurs most frequently in horses kept in stables.

## SYMPTOMS

- COPD is characterized by signs of chronic coughing, decreased exercise tolerance, difficulty breathing and abnormal lung sounds.
  - Difficulty in breathing can occur when susceptible horses are exposed to mouldy feeds or dusty conditions.

## RISKS AND/OR COMPLICATIONS

- Common risk factors for the occurrence of clinical signs are exposure to poorly cured, mouldy or dusty feeds, confinement to a stable environment, inadequate stable ventilation, straw bedding and age (6 years or older).

## MANAGEMENT RECOMMENDATIONS

- Remove the animal from the environment that appears to be causing the problem and reduce exposure to dust and moulds.
  - Horses suffering from acute signs of COPD experience substantial remission of clinical signs one to three weeks after being moved to a dust-free environment and fed cubed roughage or haylage (fermented hay).
- Keep susceptible horses in the open air. Many owners are reluctant to keep horses outside during cold weather but there is ample evidence to show that horses do very well in cold, dry climates when they are in good body condition and given adequate nutrition, a good windbreak and overhead shelter.
- Horses with COPD that are kept indoors require well-ventilated stalls bedded with shredded paper, peat or high-quality shavings.
- Do not have horses in the stalls when cleaning stalls if possible to reduce exposure to dust and ammonia.
- Increasing the frequency of meals (four to six meals per day) helps avoid boredom in animals, promotes the proper functioning of the digestive system and proper digestive health, keeps saliva production constant, prevents a reduction in the gastric pH and therefore protects the gastric mucous membranes.
- It is strongly recommended to have the animal examined by a veterinarian and have laboratory tests performed to detect and identify allergens. This combined approach of an adapted diet and environmental control may help reduce symptoms.

## DIETARY RECOMMENDATIONS

- Minimize/eliminate dust and mold in the diet by utilizing feeds that reduce or eliminate the amount of hay in the diet, including complete feeds and feeds with beet pulp and soybean hulls as a source of highly digestible fibre.
- As required, feed only high-quality hay, hay cubes or chopped forage products.
  - Soak hay in water prior to feeding to minimize dust but avoid leaving hay soaking for more than a few hours in warm weather to reduce risk of mould.
  - Placing feed at ground level may also assist in draining inflammatory exudates collected in the trachea.

## SUGGESTED PURINA PRODUCTS

### FEED NOTES

- Minimize/eliminate dust and mold in the diet by utilizing feeds that reduce or eliminate the amount of hay in the diet, including complete feeds and feeds with beet pulp and soybean hulls as a source of highly digestible fibre.
- As may be required, feed high-quality hay soaked in water, hay cubes or chopped forage.

### RECOMMENDED

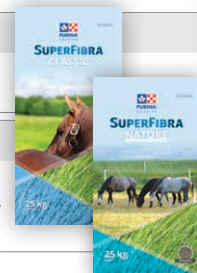
Select a cubed product (hay substitute or supplement) in combination with a feed labelled with the **SUPER FIBRE** and **OMEGA-3** icons to add fibre to the daily ration.

#### SUPERFIBRA CLASSIC

can replace up to 50% of the daily hay ration.

#### SUPERFIBRA NATURE

can replace up to 50% of the daily hay ration if served with the appropriate amount of complete supplement.



- Serve these feeds with at least 1.5–2.5% of the horse's body weight (on a dry matter basis) in long-stemmed forage (hay/pasture) per day.
- Prefer a product with a high digestible fibre content such as **INTEGRI-T** or **TRIMAX**.
- Use **PUR-ATHLETE** as a source of digestible fat and omega-3 (anti-inflammatory) and omega-9 for an extra calorie source as needed.
- **HORSE-SHIELD** may also be added to the diet to promote nutrient absorption and increase the digestibility of fibre in the ration.
- Add **HORSE PLUS** to the ration for extra vitamin B to support the equine metabolism.

#### FEED RATE PROTOCOL NOTICE

This feeding protocol described here pertains only to Cargill Limited Horse Feeds. There is not established feeding protocol that all feed companies must follow. Purina provides two feeding rates on their tag a "Minimum" and a "Purina Superior". The "Minimum" meets the levels established by the NRC Nutrient Requirements of Horses (2007), which will prevent all classic nutritional deficiencies. The "Purina Superior" is a greater level of fortification that promotes an optimal level of performance and immunity. By no means does that imply "Minimum" is subpar, and for the non-competitive horse, that stays home year round and has no health issues there is probably no need to exceed this level. However, if you are feeding a true equine athlete, with all the immune stresses associated with that level of competition, then the "Purina Superior" level is paramount to ensure an optimal level of performance and immunity.